

### **DETAILED ACTION**

This is a Final Rejection for Application No. 10/690,403 in response to the amendment filed on June 25, 2008.

#### ***Response to Arguments***

Applicant's arguments filed on June 25, 2008 have been fully considered but they are not persuasive. The Applicant argues the rejection under 112 second paragraph of claims 6, 7, 10, 11, and 18. For claim 6, the Applicant states  $L=S3$  does not violate ( $S2 \geq L \geq S3$ ), and  $L > S$ , since  $L$  can be greater than or equal to  $S3$ . The Examiner respectfully disagrees with the Applicant. Claim 6, states  $S=S3$  therefore the two values are interchangeable. Thus the claim 1 limitation of ( $S2 \geq L \geq S3$ ) is now ( $S2 \geq L \geq S$ ) which provides for  $L=S$ . This is a clear violation of the claim limitation  $L > S$ . The claim must be amended to indicate that  $L \neq S3$ . The Examiner suggests adding "the outer diameter of the large-diameter portion of the first endoscope is not equal to the outer diameter of the soft section of the third endoscope," to the claim limitations of Claim 6.

In regards to claim 7, the Applicant argues the limitation  $S \geq S3$  does not effect limitations of claim 1 ( $S2 \geq L \geq S3$  and  $L > S$ ). The Examiner respectfully disagrees. When one uses  $S=S3$ , this conflicts with the claim 1 limitations since the result is  $S2 \geq L \geq S$  and  $L > S$ . Thus again, the claim presents a condition where  $L=S$  which conflicts with the limitation  $L > S$ . The Examiner suggests adding "the outer diameter of the large-diameter portion of the first endoscope is not equal to the outer diameter of the soft section of the third endoscope," to the claim limitations of Claim 7.

The above logic relates also to claims 10, 11 and 18 and therefore the same condition must be avoided. The Examiner suggests adding "the outer diameter of the large-diameter portion of the first endoscope is not equal to the outer diameter of the soft section of the third endoscope," to the claims.

The Applicant argues the rejection of claims 1, 6, 7, 10, 11, 16 and 18 under US Patent 5,885,208 to Moriyama and US Patent 4,690,175 to Ouchi et al. The Applicant specifically argues the assertion by the Examiner that by their very nature, Endoscope have a minimum and maximum diameter. The Applicant further argues the selection of the diameters is based on the need to unit the diameters so as to eliminate a sense of discomfort. The Examiner respectfully disagrees with the Applicant's arguments. The Applicant has merely presented an intended use of the invention. Further, "uniting the diameters so as to eliminate a sense of uncomfortableness" suggests the desire to have all of the endoscopes' diameters be the same. Moriyama has been shown to suggest the use of multiple endoscopes with all of the same feeling of hardness to the operator (Col 2 Lines 33-46). Thus Moriyama suggests the same collection of endoscopes which eliminates a sense of discomfort to the operator as all of the endoscopes would feel the same. Ouchi is provided in order to present one means of adjusting the hardness of an endoscope is to adjust the diameter (Figs. 1 and 5, Col 7 Lines 13-35 and Col 8 Lines 3-21).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6, 7, 10, 11 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For the following claims the Examiner uses the following variables to define the diameters for the Endoscopes:

L=Large-diameter portion of first endoscope

S=Small-diameter portion of first endoscope

D2=Diameter of second endoscope

D3=Diameter of third endoscope

The claims provide several unsupported situations where the diameters may not meet the limitations required by claim 1.

[claim 6]

Claim 1 provides the following requirements for the diameters of the endoscopes: "larger-diameter portion... outer diameter is larger than the outer diameter of the small-diameter portion", "a third endoscope...is substantially equal to or smaller than the outer diameter of the soft section of the second endoscope", and "the outer diameter of the larger diameter portion of the first endoscope is substantially equal to or smaller than the outer diameter of the soft section of the second endoscope, and is substantially equal to or larger than the outer diameter of the soft section of the third endoscope".

Put mathematically:

$S < L$     $S3 \leq S2$     $L \leq S2$     $L \geq S3$

Claim 6 provides the additional limitation of "outer diameter of the small-diameter portion of the first endoscope is substantially equal to the outer diameter of the soft section of the third endoscope, and the outer diameter of the large-diameter portion of the first endoscope is not equal to the outer diameter of the soft section of the second endoscope". That is  $S=S3$  and  $L!=S2$ . The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent  $L=S3$  which would present the unsupported situation of  $L=S$  for the first endoscope.

[claim 7]

Using the above defined variables, claim 7 requires  $S3 \leq S$  and  $L!=S2$ . The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent  $L=S3$  which would present the unsupported situation of  $L=S$  for the first endoscope.

[claim 10]

Using the above defined variables, claim 10 requires  $S3=S$ . The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent  $L=S3$  which would present the unsupported situation of  $L=S$  for the first endoscope.

[claim 11]

Using the above defined variables, claim 11 requires  $S3 \leq S$ . The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent  $L=S3$  which would present the unsupported situation of  $L=S$  for the first endoscope.

[claim 18]

Using the above defined variables, claim 18 requires  $S=S3$  and  $L=S2$ . The claim lacks the necessary limitations to maintain the scope of the Application, as an example the claim does not prevent  $S3=S2$  which would present the unsupported situation of  $L=S$  for the first endoscope.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 6, 7, 10, 11, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,885,208 to Moriyama in view of US Patent 4,690,175 to Ouchi et al.

[claim 1]

As shown in Figure 10, Moriyama teaches the use of multiple endoscopes (7, 207, 307, 407) for examination in a body cavity (Col 1 Lines 10-16). The endoscopes each share the video processor (4) and light source (3)(Col 19 Lines 13-16). Moriyama further teaches the soft portion (13, 213, 313, 413) are part of the insertion units (6, 206, 306, 406) of the endoscopes (Col 19 Lines 25-29). Moriyama teaches the insertion units have different diameters (Col 19 Lines 40-41 and 45-47). Therefore the soft portions would have different diameters since they are part of the insertions units, as

shown in the figure. Note, the citation specifically states endoscope 402 has a large diameter insertion unit (406) and endoscope 302 has a small diameter insertion unit (306). It is further noted by the Examiner that Figure 10 depicts endoscopes 7, 207, and 307 all having the same diameter insertion units. These endoscopes satisfy the requirements for the second and third endoscope in claim 1. Moriyama further teaches the use of varying softness for the endoscopes (Figs. 23, 24, 26, 27, 29-33). Figure 23 depicts an endoscope with an overall soft section (512A). This soft section's characteristics are determined using armor tubes (531a and 531b). These tubes exhibit different hardness levels (Col 26 Line 57-Col 27 Line 8). Moriyama teaches the use of varying flexibilities in order to provide an endoscope system which has a feeling of compatibility to the operator (Col 2 Lines 33-56). Moriyama is silent on an endoscope with an insertion unit containing a small diameter portion and a large diameter portion as required by the first endoscope in claim 1.

Ouchi teaches the use of flexible tubes for use with endoscopes to vary the flexibility of the endoscope tube and facilitate insertion into the body cavity (Abstract, Col 1 Lines 9-13). Ouchi specifically teaches the use of a small diameter(A) and a large diameter(B) in order to vary the flexibility (Fig. 1 and 5, Col 7 Lines 13-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide an endoscope using the flexible tubing of Ouchi with the endoscope system of Moriyama in order to provide an endoscope with varying flexibility as taught by Ouchi (Abstract, Col 8 Lines 3-21).

Though Moriyama and Ouchi are silent on a larger-diameter portion being substantially equal to or smaller than the outer diameter of the soft section of a second endoscope and a larger-diameter portion being substantially equal to or larger than the outer diameter of the soft section of a third endoscope, endoscopes by their very nature have a minimum and a maximum diameter in order to facilitate insertion into the body cavity. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide endoscopes with a diameter near the maximum diameter, the minimum diameter and in between the two extremes in order to facilitate the use of the endoscopes for examining different body cavities as suggest by Moriyama (Col 2 Lines 47-56).

[claims 6, 7, 10, 11, 16 and 18]

As best understood by the Examiner with respect to the above 112 rejection, Moriyama shows endoscopes (7, 207, and 307) having different diameters and lengths of insertion units (2, 202, 302) (Fig. 10). Moriyama further suggest different softness characteristics for different endoscopes (Figs. 23, 24, 26, 27, 29-33). Moriyama further teaches the importance of providing a system which allows for multiple types of endoscopes for insertion into different body cavities with a compatible feel (Col 2 Lines 34-56). As stated above, endoscopes by their very nature have a minimum and a maximum diameter in order to facilitate insertion into the body cavity. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide endoscopes with a diameter near the maximum diameter, the minimum diameter and in

between the two extremes in order to facilitate the use of the endoscope for examining different body cavities as suggest by Moriyama (Col 2 Lines 47-56).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **ERICK REKSTAD** whose telephone number is (571)272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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